

Sequencing Listing

sequence	/21.19	<u>a</u>						
<110>	Young-Hoon PARK et al.	THE TRADENT						
<120>	A NOVEL L-THREONINE IMPORTER FROM CORYNEBACTERIUM AND A PREE METHOD OF A STRAIN PRODUCING L-THREONINE	ARATION						
<130>	3884-0127PUS1							
<140> <141>	US 10/582,241 2006-06-09							
<150> <151>	PCT/KR2004/003031 2004-11-23							
<150> <151>	KR2003-0089711 2003-12-10							
<160>	3							
<170>	Patentin 3.2							
<210> <211> <212> <213>	1 4846 DNA Corynebacterium glutamicum ATCC 13032							
<220> <221> <222> <223>	gene (23)(1168) ORF1							
<220> <221> <222> <223>	gene (1772)(3025) ORF2, novel L-threonine importer (thrY)							
<400> gatcggt	1 cccg cacggctggc gaatgctgga atcctggggt ctgctcgacc aaattgtcgt	60						
ggccggc	ctac ctcccagaag acatgcagtt ccgcgacgct gtcaaccgcg aaaccatcct	120						
gaccato	gegt ttegatgaag aattecagea geactaegge ggtegetaee tggtgattea	180						
ccgctct	gac ctgctcaaca tcctggtcac caacgccgaa gcagcgggcg cgaagctcca	240						
caatggc	cgtc ctggtcaccg attcccgcac cgtcgacggc ggtatcgagg tggacatcga	300						
atcctcc	cate aacaagggeg aagataacaa gaetttgett gtegaegeet teetegeett	360						
cgacggc	cate caeteggtea tgegeaaaaa gettgtegae gaegeeeeeg tegeeteete	420						
ctacgto	cgcc taccgcggca cctccaagct ggcagaagac gccgaaatga aggacctgaa	480						
atccgto	catc ggctacatcg gaccacacgt gcacttcatc caatacccac tgcgcggcgg	540						

600 agaactcctc aatcaggtcg ccgtctttga atcccagcgt tacctcgatg gacgcaccgc 660 cggcgacatc ccagaagact ggggcaaccc cgaagaatta gaccgcgcct acaaccactg 720 cgaccccttc atccaggacc gtctggacac cctgtggcgc aacaactggt ggcaaatgtc 780 cgaccgcgag cctctagaga actggcgtat cggccgcatg ttgctgcttg gcgacgccgc 840 ccacgcaccc ctccagtacc tcgcctcagg cgcggtcatg gccatggaag acgccgaggc 900 tgtcgccctc ttcgctgccg acgctgcgcg tgctggcaac ctcgattggg aagaggtact 960 cgcagaggtg gaagctgaac gccgaccacg ctgcagccgc atccaaaccg taggccgttt ctggggagag ctctggcatg tggaaggcac cgcacgtctc atccgcaacg aagttttccg 1020 1080 ccaagcagac cgcaatggct ggttcatcta tgcagactgg ctgtggggtt acgatgcatc 1140 caagcgtgcc cacatcgcca accetgaget eggagaaatg ccacaagcae tgaaggaatg 1200 gcgctacgcc ctcctcgaac agaaatagca gcctcacctg ttaagggaaa attgtgtgct 1260 tttcccaggc aggctcttta atgtcgagtt cttaagttcg atttcttaac agcgatttca 1320 gtcggaaaac cggggaaaac cgagcgaaat cgctgttgag aaattgagct tgaggtattg 1380 gaaccatgaa ctcgacaccg tgaaatcgca gttaagaaac aaccgcgaaa tatgggcgtt taaggcgtcg aggtttccgt atgggtgtga gtctagggag agccagttaa ggcccttaga 1440 1500 agcgattctg tgaggtcaaa cttttaggga tctcggtcgt gaattcaccc ttttcgaggc 1560 agaccagaca ggcgtgacaa gattggcgaa aaagccgagg ttttggcacg tgtgtccggt 1620 ttccaatccc ctaaaccaga cagacgtgcc aaaacctggc gaaaatccag attcttgtca 1680 cgcctgtctg gtttctcctt ttgagcgacc caaaccacgc ccgaaccacc gttccacagc 1740 ccccacgaac cctcaagaca gaaaagatcg caccagccgc atcgagctgg tgcgatcaaa 1800 ccgcagtaaa aactacagaa aatgcgggtt tctacttgtg atgttccaca tccgatggag 1860 tgatgtcgaa ggcaacgcgg tcgtcttctt cgatttcatc tggggaagtg gtgtgcagct 1920 ggcccttggc gaatttgttc acgatgactg cgattgcgcc gtcgccggtg acgtttgctg 1980 cggtgccgaa ggagtcaatc gcgatgtaag cggcgatcat gagggcgact tgttcggtgt 2040 tgaatccgag catggaggcc agcatgccgg ttgctgccat gatggctccg ccgggaacgc 2100 ctggtgcggc gatcatggtg atgcccagca tgaggaggaa tccgatggag aggccgacgc 2160 ctacttccat gtcgtacatg aagacaacag cgaaggtgaa gaggccgatc ttcatcatcg 2220 atccagctag gtggatggtg gcgcacagtg ggacaacaaa gcctgcgacg ttgacatcaa

catcgttttt c	agggtctgc	tggtaggtca	ctgggatggt	tgccgctgaa	gaggaggtgc	2280
ccagtgcagt g	aagtatgca	gggaycatgt	ttttgaacag	tttccatggg	ttcttcttgg	2340
atactgcacc a	gcgataatg	aactggatgg	ctaggaagag	cagggttccc	acgacggcga	2400
gaatcagtac c	ttgccaaag	gcggacatga	tctccaggag	gccaccgttc	atgcccatgc	2460
cgaggaagat g	ccgaagatg	aagagtggca	gcagtgggat	gacaaaggcg	gtgatggtct	2520
tcatgactac g	cgctcgagt	tcgcgggtta	ccttgaacag	ggtgtctgat	ttaattacag	2580
ccatgcccag g	ccgaggcag	aatgccagca	gcagtgcggt	catcacttca	aatggtggtg	2640
gcatctcgat g	ttgaagtag	ggctągaggg	cacctgcatc	aaggtcgatt	tcggtgacgc	2700
tttggtggtc t	ttcagcagc	catgggtaga	gcgcttggga	tgctccgtag	gcgatcagac	2760
cggagaagac g	gtggacgcg	taggcgattg	ctgcaacaat	gccgagccat	ttgccagcgc	2820
ctcggccgag c	cctgcaatg	gcgggggcga	tgagggagaa	gatcagcact	gggatgaaga	2880
agcccagaaa g	ttgctgaat	aggccgttga	aggtggtgaa	gatctcagcg	agccacaccg	2940
ggaagaagag g	ctgcagatg	attccgagga	tgatggcaac	gatcactcgg	aacagcagcg	3000
acgageteat g	ctctttatg	tccatggttg	ttccttattt	ctaatcaggt	gctgtctgag	3060
caatgctcgg c	agcgcgtga	tggaattttg	tgtgcggctt	ggaagtgacg	ggtcacaagg	3120
acagctcgtg t	agaccctgc	ctggagcctt	gacaaactcc	accaaacaac	tgcgacgtgt	3180
gtcagattac t	gcaggcttg	tggtcaaacc	tagttctttg	gaggcggagc	atcatacctt	3240
ttaatgtcag g	atcgtgcag	tgaagaattc	aggatgaatt	actcgctgga	atattggtgg	3300
ggatagagtt g	ttgttatga	cggtgatcgg	aattattctt	ggcagccttt	ttggcgttct	3360
tgcagtcctt c	ctcatcgtgg	ttggtgcttt	ggggtgggcg	gctaagctcc	ctggcaaccc	3420
ggttgtgggc a	ttcgtgtcc	ctgaygtgcg	taaatcccaa	gaattgtggg	atatggcgca	3480
ccgtgtcgct g	gcccgttgt	gggtgctgtc	gggagtttcc	tttgttattg	catcgctagt	3540
tgcgtttgtt g	cttctggtt	ggatgtggct	tgttgtggcg	ttgggtgttg	tggctgccat	3600
cgtgttcatt g	gtatgggtg	cgggtatggc	tgcgcatact	gttgcgatgg	ttgacgcgaa	3660
gcgcagtcgc g	aaaccccgc	aggcgcctgt	ttccgctgaa	attgaagagg	ccggtggtgt	3720
gactattacc t	cgccgatta	tcaacaagac	tccgctgaat	gcccccaaga	ttgacttgga	3780
tgcagtgcgt a	gagctgcgg	aaactacgca	agaacccaaa	aatgattaat	aattgagaca	3840
agcttcccac t	atgtgataa	agtcccattt	tgtgaataac	tcttgtctca	gtcaaagcac	3900
ccagtggtgg t	ggcgcgcta	actaagcgag	cctgacacct	caagttgttt	tcactttgat	3960

gaattttta	aggctcgtac	ttcgttcgac	gaagaagcgg	gccttttgtg	gtttttagcc	4020
cacaaccggc	aagccctgga	tcgaatgaag	ctcgcagcga	gtaattattt	gatgtttccc	4080
agaaaggctt	cagccccaca	atgatttcct	cggtaggtgc	cccatgagca	cgaatcccca	4140
tgttttctcc	ctagatgtcc	gctatcacga	ggatgcttct	gcattgtttg	cccacttggg	4200
tggcacaacc	gcagatgatg	cagccctgtt	ggaaagcgct	gatatcacca	ccaagaatgg	4260
tatttcttcc	ctcgcggtgt	tgaagagttc	ggtgcgcatt	acgtgcacgg	gcaacacggt	4320
ggtaacgcag	ccgctgacgg	actcgggtag	ggcagtggtt	gcgcgcctaa	cgcagcagct	4380
tggccagtac	aacaccgcag	agaacacctt	tagcttcccc	gcctcagatg	cggttgatga	4440
gcgcgagcgc	ctcaccgcac	caagcaccat	cgaagtgctg	cgcaagttgc	agttcgagtc	4500
cggctacagc	gacgcgtccc	tgccactgct	catgggcggt	ttcgcgtttg	atttcttaga	4560
aacctttgaa	acgctccccg	ctgtcgagga	gagcgtcaac	acttaccccg	attaccagtt	4620
cgtcctcgcg	gaaatcgtcc	tggacatcaa	tcaccaggac	cagaccgcca	aactcgccgg	4680
cgtctccaac	gccccaggcg	agctcgaggc	cgagctcaac	aagctttcat	tgcttatcga	4740
cgccgccctc	cccgcaaccg	aacacgccta	ccaaaccacc	cctcacgacg	gcgacactct	4800
tcgcgttgtg	gctgatattc	ccgatgctca	gttccgcacc	cagatc		4846

<210> 2 <211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic PCR primer

<400> 2

gacttgttcg gtgttgaatc cgagc 25

<210> 3

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic PCR primer

<400> 3

cggtctgatc gcctacggag caatc

25